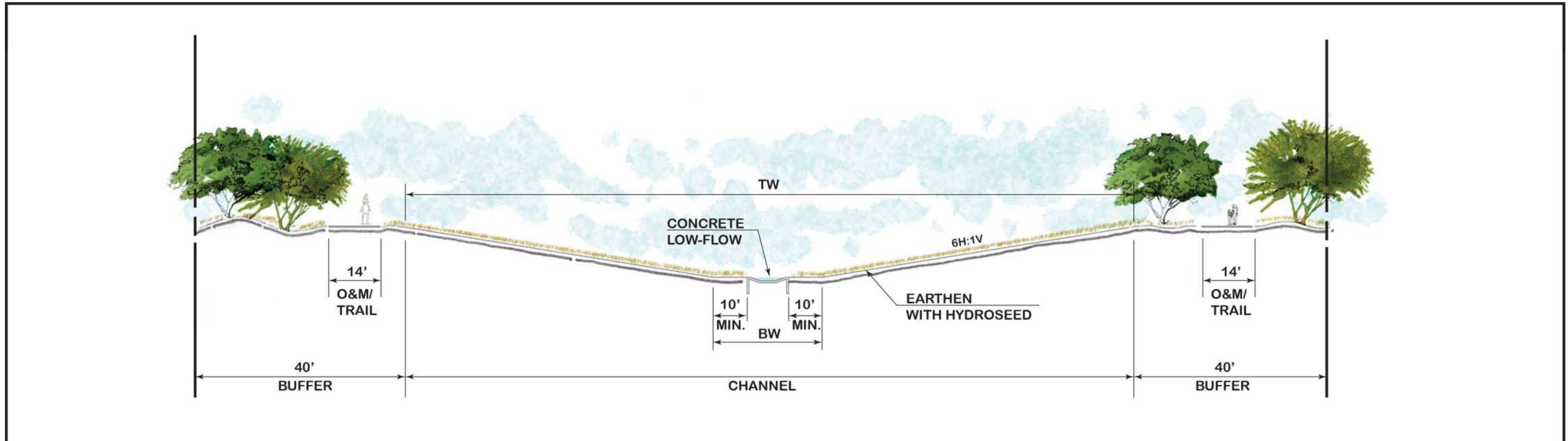




WATSON DRAINAGE SYSTEM

Watson Drain Channel Character Area

Typical Cross-section



HYDROSEED WITH CONCRETE LOW-FLOW
CHANNEL EXAMPLE

CHANNEL DESCRIPTION:

The Watson Drain Channel is intended for the area south of the BWCDD where no currently planned developments have been identified, but options for future development should not be precluded by the current channel configuration.

The hydroseed lining was selected by the Town of Buckeye in order to keep maintenance requirements low.

6:1 max. side slopes are allowed in order to keep slope at a mowable grade.

Sufficient space in the channel bottom is required for mowers and maintenance equipment.

Berms and swales should be included in the overbank area to control off-site flows and reduce erosion

The Town of Buckeye desires the channel landscape to be simple, and not create a future regulatory restriction on reconfiguring the channel if future development so wishes.

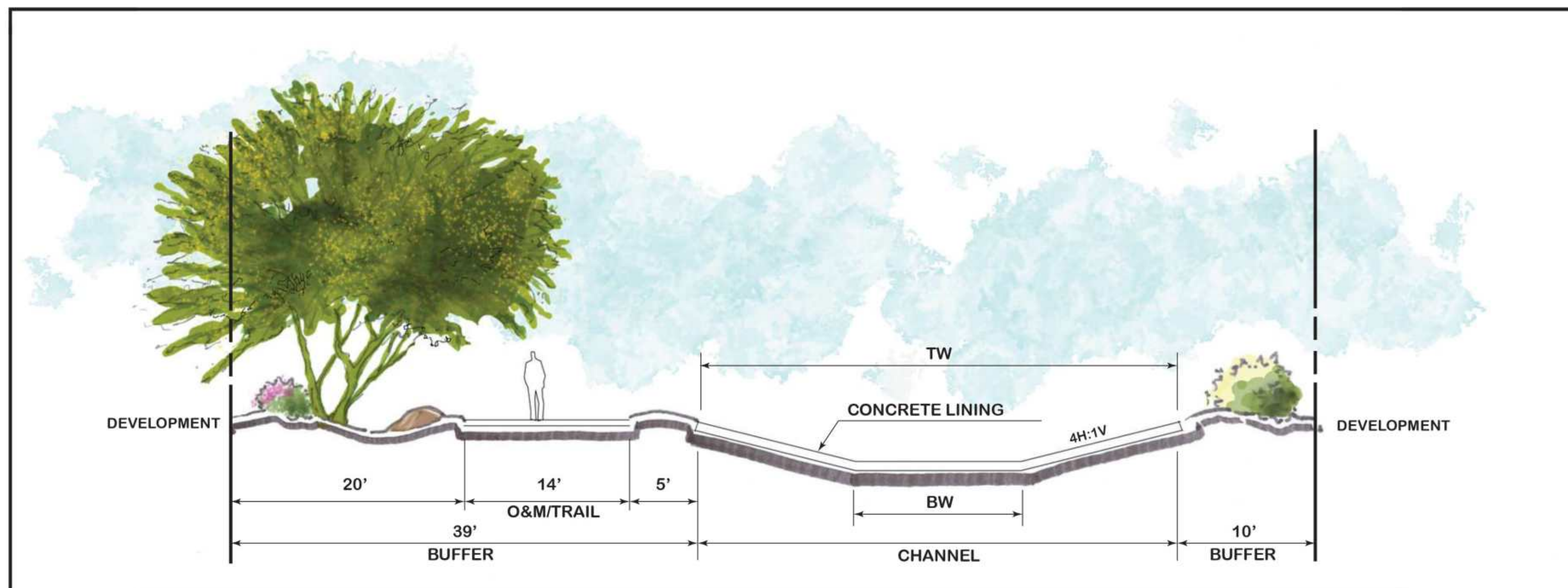
Landscape treatments for this channel will be limited to a natural desert hydroseed mix and tall pot trees. Tall pot trees should be restricted to the channel overbank area.



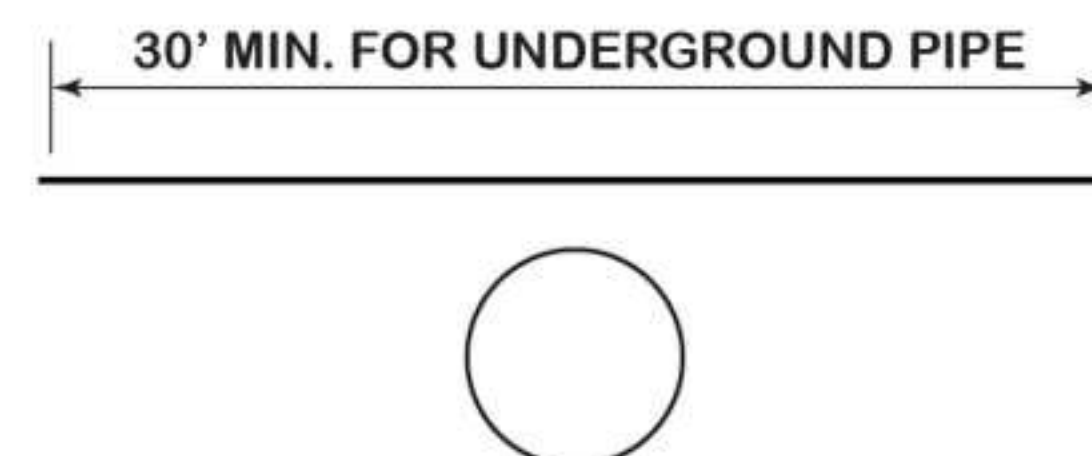
WATSON DRAINAGE SYSTEM

Industrial Channel Character Area

Typical Cross-section



CONCRETE CHANNEL EXAMPLE



CHANNEL DESCRIPTION:

The Industrial Channel is intended for industrial land-use areas.

The concrete lining was selected by the Town of Buckeye based on the industrial land-use and anticipated flow velocities.

4:1 max. side slopes are allowed for safety purposes and to preclude the requirement for handrail along the length of the channel.

The O&M road/multi-use trail should be set back from the top of bank a min. of 5'.

The 20' trail setback was identified based on the Town of Buckeye's Trails Master Plan recommendations.

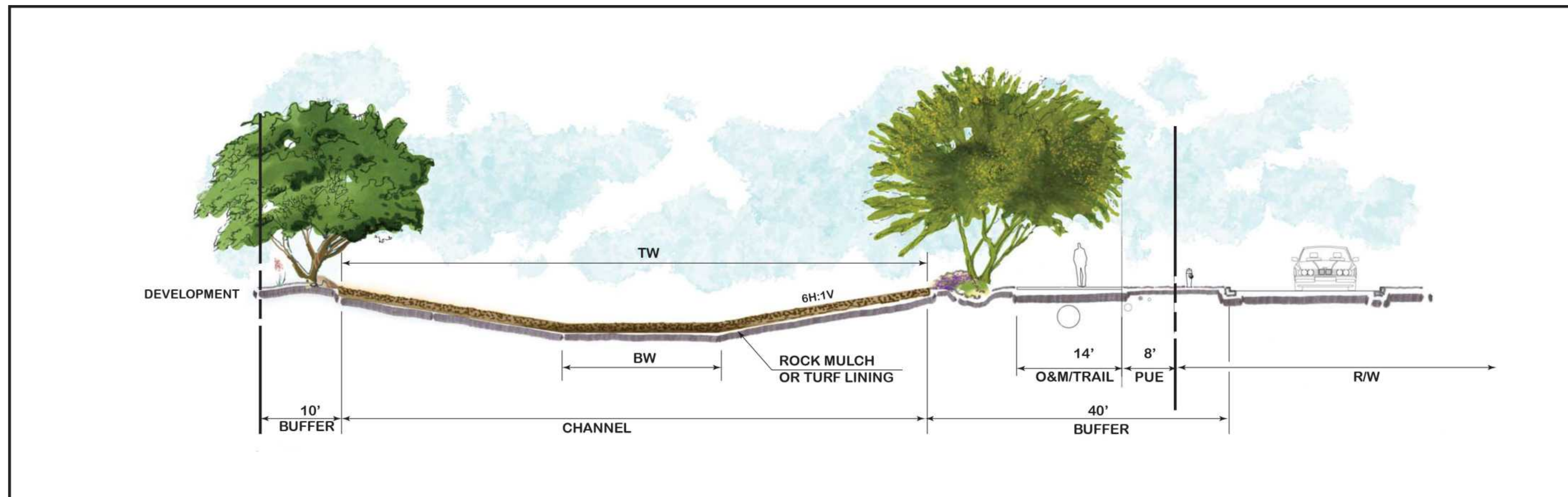
Trees should be included in the landscape setback along the trail in order to provide some shade and help screen trail users from the adjacent industrial uses.



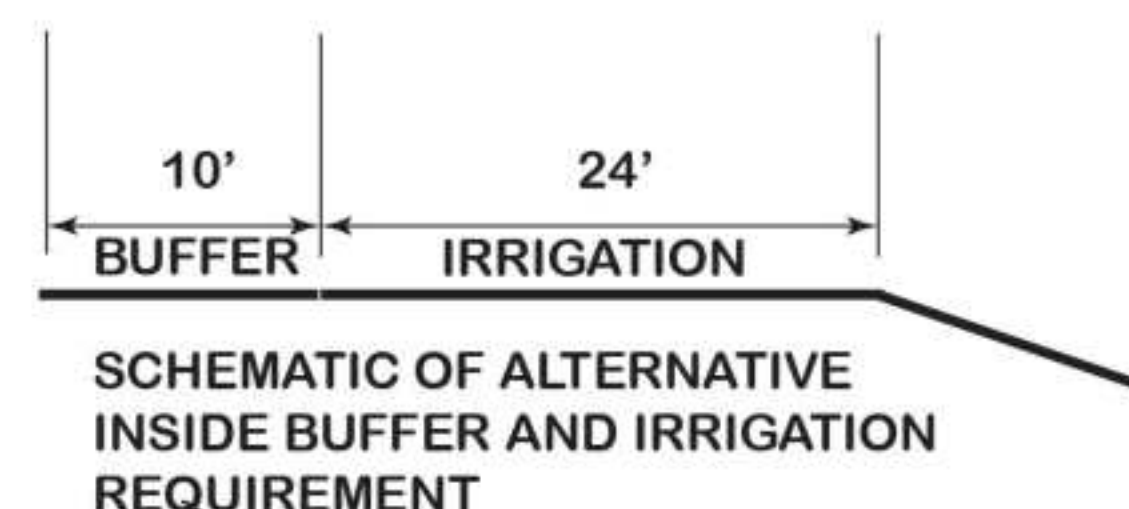
WATSON DRAINAGE SYSTEM

Maricopa Channel Character Area

Typical Cross-section



ROCK MULCH CHANNEL EXAMPLE



CHANNEL DESCRIPTION:

The Maricopa Channel is intended for suburban land-use areas adjacent to residential developments.

The rock mulch or turf lining was selected by the Town of Buckeye based on anticipated flow velocities and soil conditions.

Rock mulch selected for the channel should be from the same source and same color as the decomposed granite and other rock included in the landscape areas of the channel.

The 14' O&M road will serve dual use as a multi-use trail, replacing the need for sidewalk in the right-of-way.

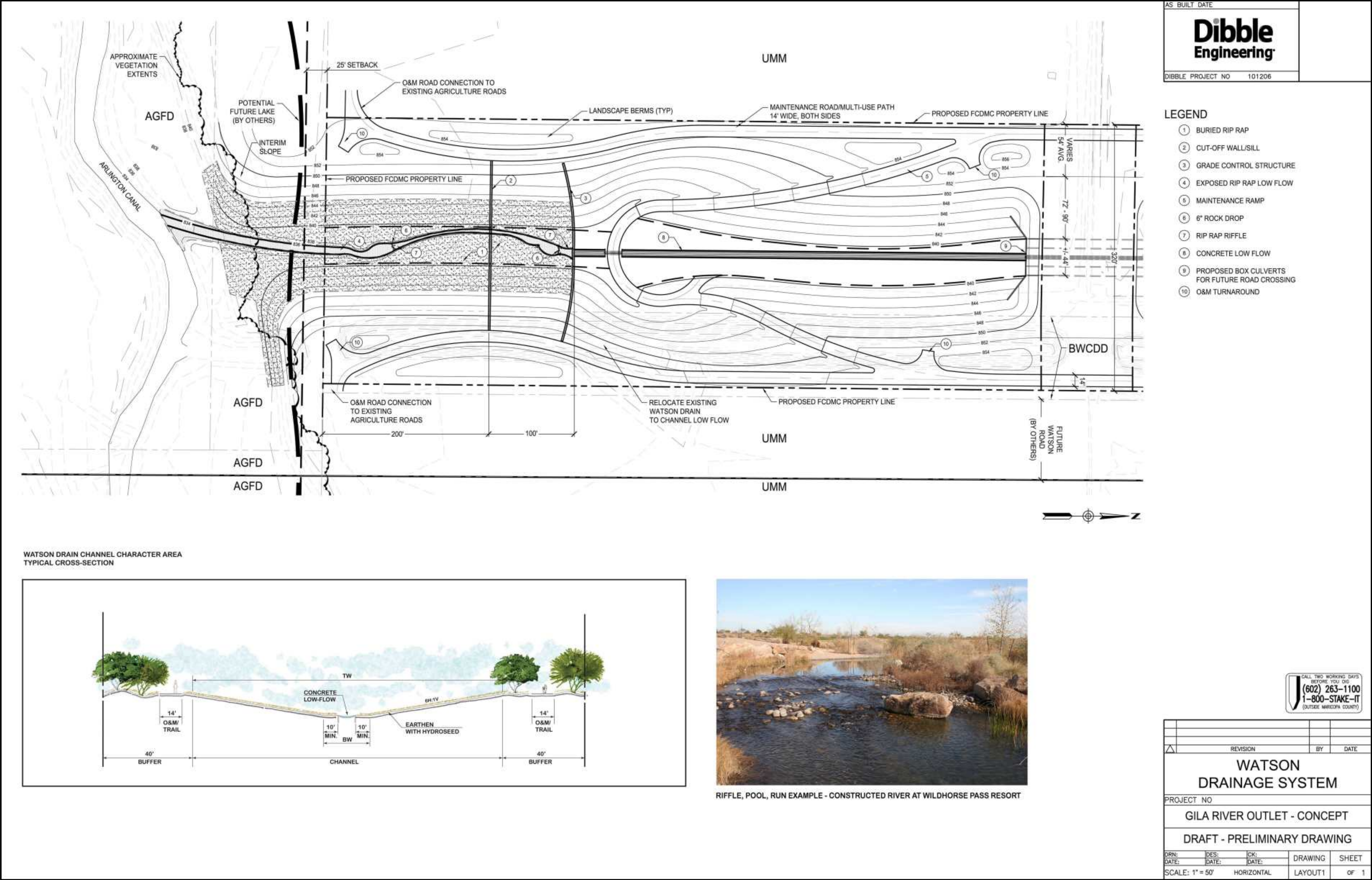
The 8' PUE is shown in a modified condition from the Town of Buckeye standard roadway design for Maricopa Road. This is due to the replacement of the sidewalk with the multi-use trail, and to allow for some landscape buffer between the trail and channel top of bank.

The Maricopa Channel design should include meander of the channel bottom through side-slope warping (4:1 to 8:1).



WATSON DRAINAGE SYSTEM

Gila River Outlet

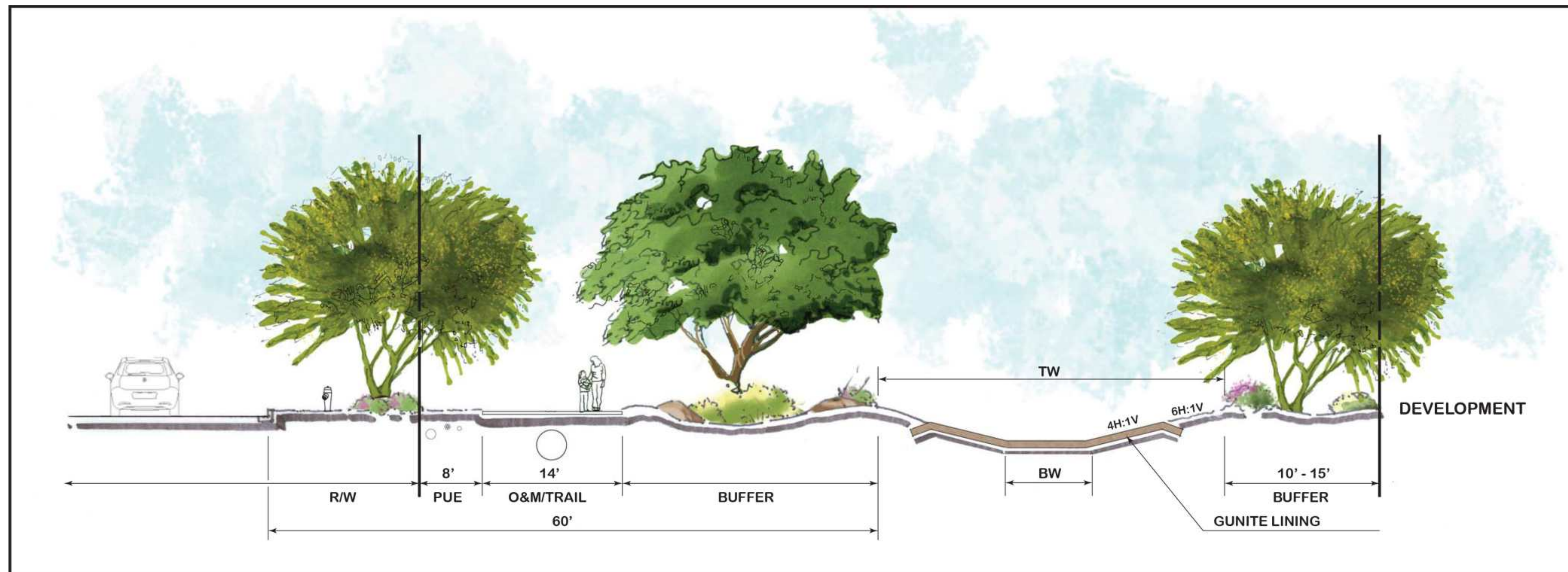




WATSON DRAINAGE SYSTEM

Apache Channel Character Area

Typical Cross-section



GUNITE CHANNEL EXAMPLE



GUNITE CLOSE-UP
AESTHETIC TREATMENTS INCLUDE
INTEGRAL COLOR, EXPOSED
AGGREGATE FINISH

CHANNEL DESCRIPTION:

The Apache Channel is intended for suburban land-use areas adjacent to residential developments.

The guniting lining was selected by the Town of Buckeye based on anticipated flow velocities and soil conditions.

Guniting lining must include aesthetic treatments such as integral color to match the color of the adjacent decomposed granite or mulch and texturing.

Guniting is intended to extend to the channel design flow depth and have a maximum 4:1 slope.

The channel freeboard may be left earthen with a max. slope of 6:1.

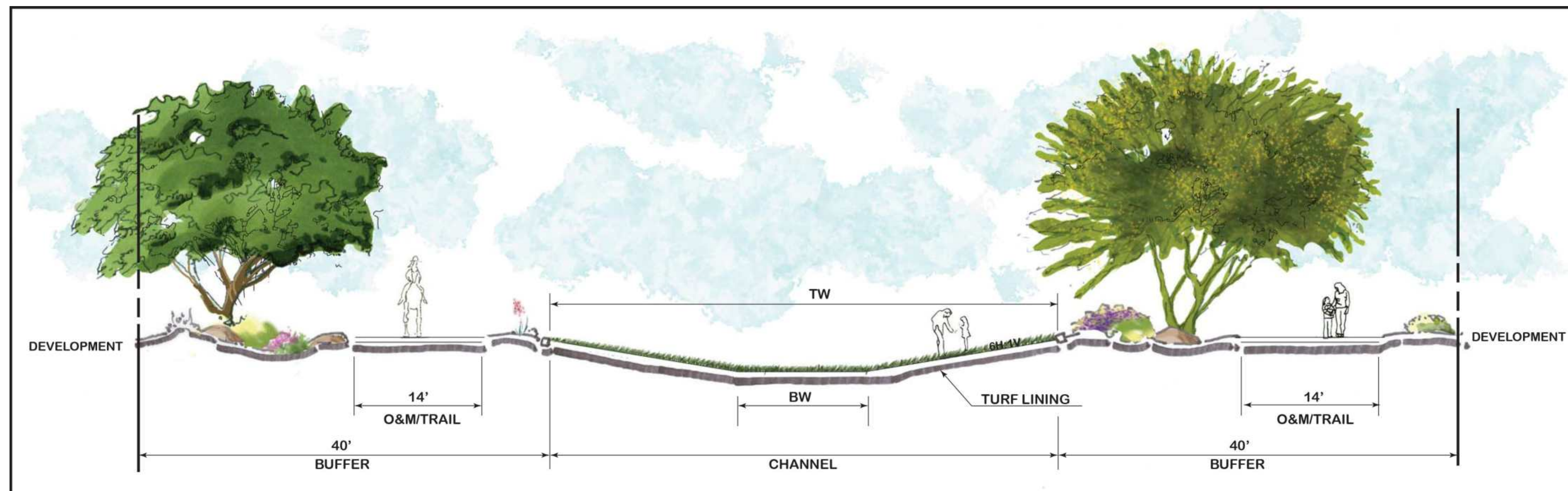
Off-site flows should be controlled through the creation of water collection and harvesting swales and berms that can direct flows into the channel in designated locations. This will help reduce channel maintenance requirements while maximizing water-harvesting opportunities.



WATSON DRAINAGE SYSTEM

231ST Avenue Channel Character Area

Typical Cross-section



TURF CHANNEL EXAMPLE

CHANNEL DESCRIPTION:

The 231st Avenue Channel is intended for suburban land-use areas adjacent to residential developments, but not on a road alignment.

The turf lining was selected by the Town of Buckeye based on anticipated flow velocities and soil conditions.

Where possible, turf channels should be designed contiguous to active recreation areas within the development. Where this occurs, buffer reductions are permissible.

The east 14' O&M road should serve as a soft-surface equestrian trail.

Multi-use trails should be setback from the channel a min. of 5'.

The turf channel should be designed with both alignment meander as well as side slope warping. 6:1 max. side slopes are permitted for turf maintenance purposes.